CHAPTER 1

INTRODUCTION

A. PURPOSE

1. This Manual provides uniform procedures for implementation of the policies and concepts set forth in DoD Directive 8320.1 (reference (c)) for DoD Data Administration. This Manual supports the Defense information Management (IM) Program. Successful execution of these procedures will help to ensure that DoD data can be identified, standardized, collected, distributed, used, and disposed of with accuracy and consistency, regardless of medium or intended use as described in DoD Directive 8000.1 (reference (g)). It will also ensure the effective management of data, like other DoD resources, throughout its life-cycle. (See Appendix A.)

2. This Manual:

   a. Describes the goals of DoD Data Administration.

   b. Presents the general concept of operations for DoD Data Administration.

   c. Amplifies the data administration roles and responsibilities for DoD personnel.

   d. Provides information on data administration procedures.

Supplemental manuals provide, upon publication, detailed procedures for specific data administration activities such as data model development, approval, and maintenance; data element standardization ("DoD Data Element Standardization Procedures," reference (f)); data security; data quality assurance; and database administration. Figure 1-1 illustrates the relationship of the DoD Data Administration Directive (reference (c)), the data administration annual plan, this Manual, and its associated supplemental procedural manuals.

B. APPLICABILITY AND SCOPE

The applicability and scope of this Manual are identical with the Applicability and Scope statements of DoD Directive 8320.1 (reference (c)). Thus, this Manual applies to all the DoD Components; the information systems of the DoD Components; and the data elements, codes, values, and symbols in those information systems. This includes command and control systems and weapon systems. Data elements and data values that are required to be unique for use in cryptologic activities are excluded.
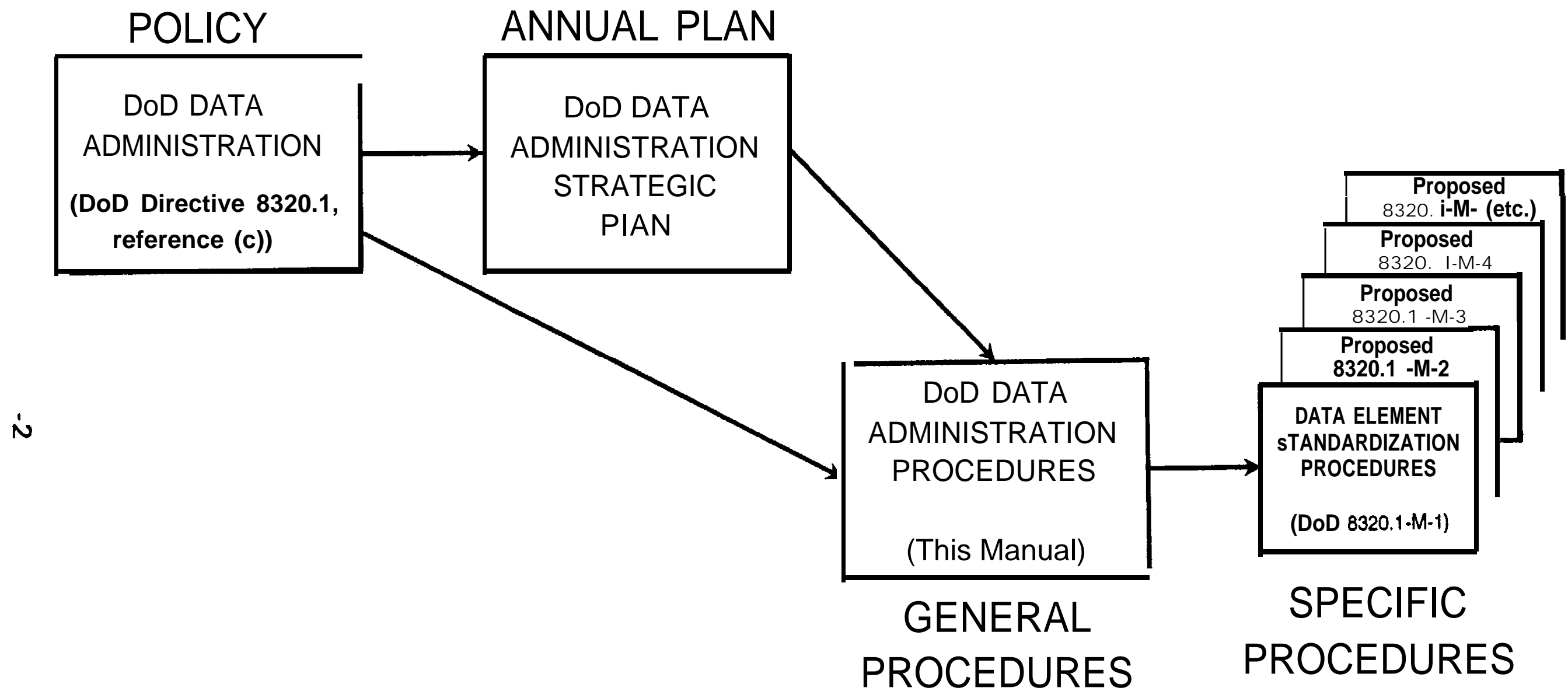
POLICY

ANNUAL PLAN

DoD DATA
ADMINISTRATION

**(DoD Directive 8320.1,
reference (c))**

DoD DATA
ADMINISTRATION
STRATEGIC
PlAN

DoD DATA
ADMINISTRATION
PROCEDURES

(This Manual)

GENERAL
PROCEDURES

Proposed
8320. i-M- (etc.)

Proposed
8320. I-M-4

Proposed
8320.1 -M-3

Proposed
8320.1 -M-2

DATA ELEMENT
sTANDARDIZATION
PROCEDURES

(DoD 8320.1-M-1)

SPECIFIC
PROCEDURES

Figure 1-1 Context of this Manual

C. __ORGANIZATION__

This Manual is organized into three major parts. Chapters 1 and 2 provide an introduction to data administration, including goals, the concept of operations and the roles, relationships, and responsibilities. Chapters 3 to 5 give the detailed procedures of the three main activities required in implementing a DoD Data Administration Program and using data administration products and services. The Appendices are designed either to be tutorial or to provide general information to further an understanding of data administration concepts or activities. Many of the topics in the Appendices have been, or are in the process of being, made into supplemental manuals to this Manual.

D. __VISION OF DoD DATA ADMINISTRATION__

Data are valued and managed as a corporate asset that supports the Department of Defense's full range of data needs. Data are captured correctly and are available at the time needed, where needed, and for the person(s) who need it to do their job. Many disparate groups are working together to ensure and maintain interoperability and shareability of the data asset via the process described in the 8000 series of Directives. Data models and activity models are used as a principal mechanism for managing the data asset, and are aligned to each other through common missions, policies, goals, doctrines, tactics, and operations orders. Data are managed by comprehensive, effective DoD-wide data administration functions, under centralized direction, with decentralized implementation and operation. The coordinating mechanism is a centrally-managed repository that has information about data needed by the data administration community, technical development activities, and functional activities throughout the Department. Operational data are managed and stored in physical structures based on logically constructed data models and related business rules. These physical structures are implemented to maintain overall quality of the data under secure conditions in varying operational scenarios under which the Department operates. Source data are entered at their origin electronically, whenever practical, without first being hand-written or typed. Appropriate data are available to the warrior in the foxhole and the commander in headquarters, in the type and form needed for the functional process being performed.

E. __STRATEGY__

1. Data administration shall be implemented in an evolutionary manner in accordance with the procedures established in this Manual. The OSD functional staff (including OSD Principal Staff Assistants (OSD PSAs)), the Chairman of the Joint Chiefs of Staff, each Functional Area and each Component respectively will establish data administration roles, relationships, and responsibilities within their function or organizational structure that correspond to those described in Chapter 2, below.

2.   To promote active participation in data administration throughout the Department, an annual DoD data administration plan, called the Data Administration Strategic Plan (DASP), shall be developed, which shall be used to define, plan, implement, and operate the DoD Data Administration Program. The DASP will contain specific objectives and activities that support accomplishment of the mission of the DoD Data Administration Program "to provide for effective, economic acquisition and use of accurate, timely, and shareable data to enhance mission performance and system interoperability. "

3.   Annual planning guidance is developed by the DoD Data Administrator (DoD DAd) and distributed to the Components and OSD PSAS to assist in the preparation of their data administration plans. Their data administration plans will be submitted to the DoD DAd each year. After review and consolidation, data administration plans are incorporated into a DoD DASP for approval by the DoD senior information management official, the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (ASD(C3I)). Major phases of this cycle are. aligned with the DoD Program Objective Memorandum (POM) and budget cycle. Figure 1-2 graphically depicts the key phases and products of the data administration planning cycle.

F.   GOALS

The DoD Data Administration Program mission concentrates on six major goals. Each goal is a broad statement of long-term objectives for DoD Data Administration. The following goals focus on benefits necessary to realize the future vision of DoD Data Administration: (Near-, mid-, and long-term objectives for the DoD Data Administration Program in support of each goal are documented annually in the DoD DASP. The objectives are measurable and provide the means to achieve the six program goals.)

Goal 1.   Operational Central Repository

a.   Goal: A centrally controlled, DoD-wide data repository is in place to receive, store, support access to, and manage standard data definitions, data formats, usage, and structures (e.g., architecture, subject area models, and other data model products). (This is the DoD Information Resource Dictionary System (IRDS) referred to in DoD Directive 8320.1, reference (c). Today, it is called the Defense Data Repository System (DDRS).)

b.   Benefit: The centrally controlled, DoD repository will provide information about data needed by the data administration community, technical development activities, and functional activities throughout the Department (e. g., data element definitions, data format, and data usage). The repository will provide the information necessary to manage and store data in physical structures that are based on logically constructed data models and related business rules. This will significantly improve the accessing, sharing, and reconciling of information.
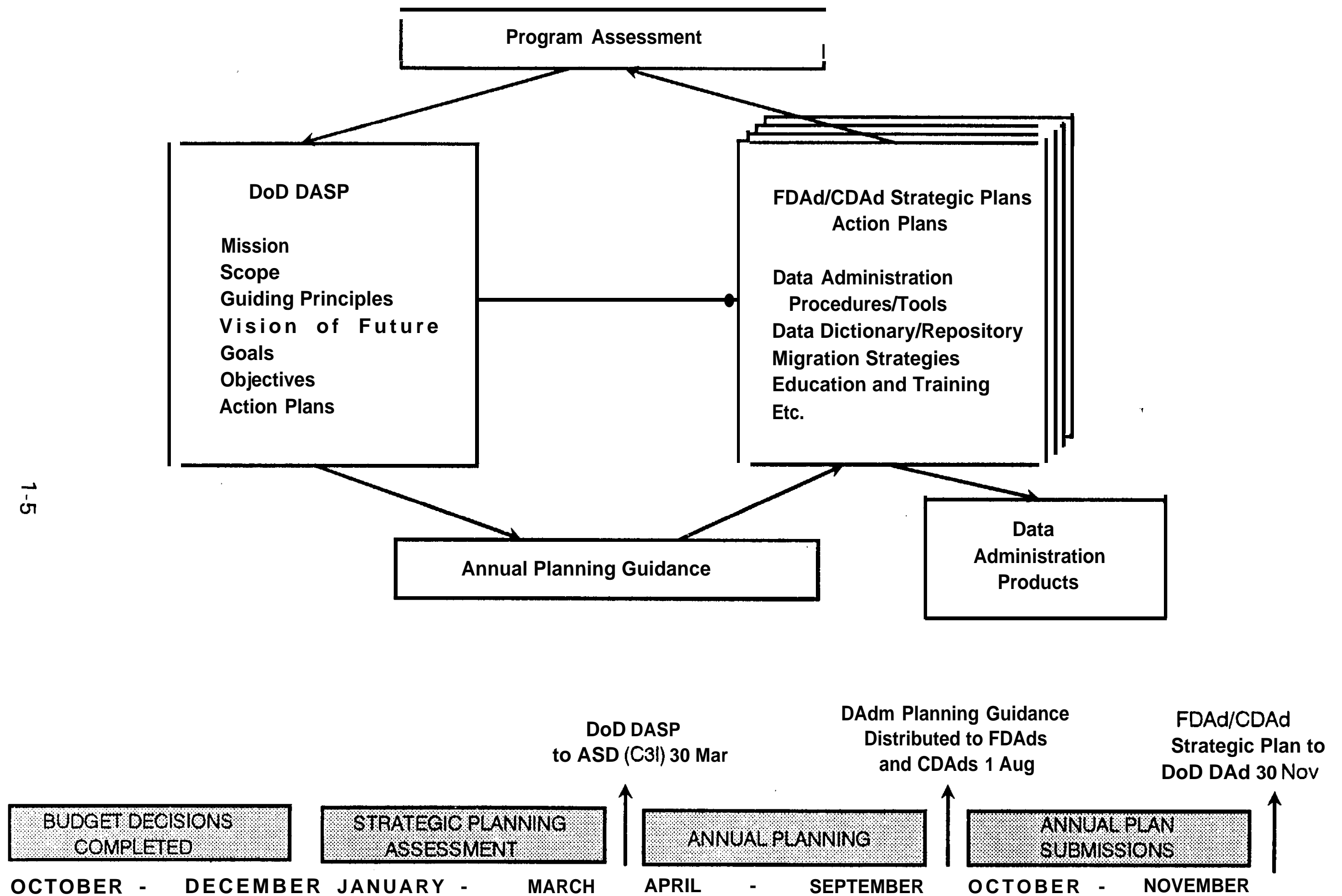
Program Assessment

DoD DASP

Mission
Scope
Guiding Principles
Vision of Future
Goals
Objectives
Action Plans

FDAd/CDAd Strategic Plans
Action Plans

Data Administration
 Procedures/Tools
Data Dictionary/Repository
Migration Strategies
Education and Training
Etc.

Annual Planning Guidance

Data
Administration
Products

DoD DASP
to ASD (C3I) 30 Mar

DAdm Planning Guidance
Distributed to FDAds
and CDAds 1 Aug

FDAd/CDAd
Strategic Plan to
DoD DAd 30 Nov

BUDGET DECISIONS COMPLETED	STRATEGIC PLANNING ASSESSMENT	ANNUAL PLANNING	ANNUAL PLAN SUBMISSIONS

OCTOBER -   DECEMBER JANUARY -   MARCH   APRIL   -   SEPTEMBER   OCTOBER -   NOVEMBER

Figure 1-2 Data Administration Planning Cycle

Goal 2. Standard Data

a.   Goal: Standard data elements, data models, and data architectures exist and facilitate data sharing, data quality, reuse, single point-of-entry, and the integration of DoD databases. (As stated in DoD Directive 8320.1, reference (c), applicable federal, national, and international standards will be used before DoD standards are created.)

b.   Benefit: Data standards will be implemented across the Department. Standardizing data descriptions and attributes for data will be simplified as a result of applying a data modeling methodology. It will provide a common vocabulary for the Department to use in exchanging and sharing information. It will support integrated operations among Functional Areas and facilitate good decision-making. Standard data will promote integrated operations between the Department of Defense and its suppliers, and among DoD Components. Standard data will increase interoperability among operational forces and among DoD Functional Areas in support of military operations. It will also facilitate management and control of data duplication and/or redundancy, contribute to minimizing data processing and storage costs, and improve data integrity. Standard data will be used, not only in automated information systems, but also, in manual information systems, forms, publications, reports, records and messages.

Goal 3.   Use of Common Procedures and Tools

a.   Goal: Common procedures and automated tools are used and continually improved to support functional managers, data administrators, and the technical support community in providing, maintaining, and using standard data products.

b.   Benefit: Architectural standards and data management and data handling procedures will guide the information system design process, and automated tools will support the reuse of data and software. Data administration products and services will be used extensively to meet the requirements of new automated information system development methods and will result in reduced development cost and time.

Goal 4. Quality Data

a.   Goal: A data quality assurance and data security program ensures that DoD operations and decision-making are supported with data meeting needs of availability, accuracy, timeliness, integrity, and need-to-know requirements.

b.   Benefit: DoD personnel will use quality data for planning and analysis; as a result, decision-making will be improved. Transactions and the exchange of technical and management information will be handled more quickly and accurately. In turn, a cost-effective operation and low overhead will be

maintained.

Goal 5. <u>Education, Training, and Consultation Services</u>

      a.   **Goal:** Data administration training, education, consultation services, and materials designed to support data administration goals are available to and used by a broad spectrum of practitioners within the Department of Defense and the DoD support community.

      b.   **Benefit:** Data administration education and training programs for functional managers, data administrators, and the DoD support community will improve understanding, communication, and the acceptance of new roles and responsibilities. Consultation services will provide expert technical assistance.

Goal 6. <u>Effective Infrastructure</u>

      a.   **Goal:** Data administration organizations are in place throughout the Department of Defense, are supported by senior management, serve functional managers, are staffed and prepared to assist the technical development activities, and provide the interfaces and leadership essential to improved data management.

      b.   **Benefit:** Data administration will be established throughout the Department of Defense and recognized as a cornerstone of Defense IM. Functional managers, data administrators, technical development activities, and functional activities will accept specific responsibilities for managing data. This will support the acquisition, distribution, and use of effective, efficient data resources and services.

G. CONCEPT OF OPERATIONS

    1.   The DoD Data Administration Program goals concentrate on targets necessary to accomplish the DoD Data Administration Program mission. The data products (and services) made available by the Program can then be used by functional activities and technical development activities (see Chapter 2, section C., below.) to do their jobs through comprehensive and cost-effective data administration operations. The final products of the program (e. g., standard data, managed data in databases) are then made available to personnel at all levels of the Department of Defense.

    2.   A set of products is associated with each of the main functional activities of the DoD Data Administration Program: Program Administration, Provide Technical Infrastructure, and Operational Services. These activities relate directly to the DoD Activity Model that is part of the DoD Enterprise Model (reference (k)). There are a set of activities that describe the development of the products for each main activity. Figure 1-3, below, shows the main activities and the principal products of each one.

PROGRAM ADMINISTRATION

- **Provide Policy**
- **Determine** Requirements
- **Provide** Strategic Planning
- . Determine Resources
- Develop **Action Plans**

PRODUCTS: Policy, Plans, and Requirements

PROVIDE TECHNICAL INFRASTRUCTURE

- **Establish Data Administration Procedures**
- **Establish Defense** Data Repository System
- Acquire Resources
- Data Model Development Approval, and Maintenance
- **Standard Data Development, Approval,** and **Maintenance**
- . **Acquire Common Tools**
- **Acquire Data Collection, Distribution, and Storage Capability**
- Develop Customer Service and Training Program

PRODUCTS: Procedures, Resources, Tools, and Technical Infrastructure

OPERATIONAL SERVICES

- Manage **Action** Plans
- Conduct **Data** Collection, **Synchronization,** and Distribution
- Provide Customer Service and Training
- **Data Products and Data Use**

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PRODUCTS: Standard Data, Managed Data in Databases, and
Data Administration Trained/Educated Personnel

Figure 1-3: Main Data Administration Activities and Principal Products

3. The DoD Data Administration Program is implemented with three primary roles at: departmental, functional, and Component level. (See DoD Directive 8320.1, reference (c).) The entire data administration community must work together to make the DoD Data Administration Program products available. The following is a brief discussion of the parts that each level and role contribute to DoD Data Administration: (Chapter 2, section D., below, gives more detail about the data administration responsibilities.)

a. <u>Departmental</u>. The DoD Data Administration Program is implemented at the departmental level under the supervision of the DoD DAd as the designated representative of the Department's senior information management official. The Defense Information Systems Agency (DISA), which has established a Data Administration Program Management Office (DAPMO) to support the DoD DAd. The DoD DAd receives policy guidance from the ASD(C3I) or the Deputy Assistant Secretary of Defense for Information Management (DASD(IM)) acting on the assistant secretary's behalf. The DoD DAd responsibilities include: development and implementation of DAdm policy, guidelines, and procedures; development and maintenance of the DDRS and the DoD Data Model; technical review of logical data models prepared by Functional Areas, Components, or others, upon request; technical review of DoD candidate standard data elements; development of the DoD DASP; and development of DAdm training, education classes, and material.

b. <u>Functional.</u> The Functional Data Administrator (FDAd) are designated by an OSD PSA to implement the DoD Data Administration Program within the Functional Area. FDAds define the data requirements for their Functional Area by coordinating with functional experts and, particularly, with the Functional Activity Program Managers (FAPMs) who also are designated by an OSD PSA. FDAds are the data stewards for data belonging to their Functional Area. Often the stewardship of a data. requirement resides in a Functional Area different from the Functional Area in which the data requirement was first identified. In such cases, the FDAd of the Functional Area in which the data requirement resides becomes the data steward. For example, the requirement for a unique identifier for person may be identified in the Finance Area but, logically, the data steward is the Personnel Area. The data steward is responsible for conducting the functional review of data when it is submitted as DoD candidate standard data, and will ensure the applicability of the standard data across the Department. The data steward also is responsible for identification of the definitive source(s) for the data values of resulting standard data elements. These values are what is actually stored in databases throughout the Department. FDAds also prepare annual data administration plans that will be incorporated into the annual DoD DASP. They maintain data models of their functional view of the DoD Data Model (See Appendix B.) and ensure that technical development activities that support the functional area comply with DoD Data Administration policies and procedures.

c. <u>Component</u>. The Component Data Administrator (CDAd) implements

the DoD Data Administration Program within the Component. They assist in the identification, definition, and organization of the data requirements for all functional areas in their organization. CDAds act as a liaison and assist in adjudicating data administration conflicts within the Component, facilitating inter- and intra-Component coordination along functional lines, and supporting and encouraging working groups to address data administration issues. They are responsible for the Component's functional review of DoD candidate data elements and for identifying any cross-functional impact on the Component. CDAds should assist FDAds in identifying and accessing functional experts within the Component and facilitate appropriate data source designation for the single point-of-entry for DoD standard data element values. Components may be designated by the steward FDAd as the definitive source for the data values of the resulting data elements. CDAds prepare strategic plans that will be incorporated into the annual DoD DASP, maintain models of their Component view of the DoD Data Model (see Appendix B), and ensure that technical development activities that support the Component comply with DoD Data Administration policies and procedures.